

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
*Do not use this form for proposals to drill or to re-enter an
Abandoned well Use Form 3160-3 (APD) for such proposals.*

SUBMIT IN TRIPLICATE – Other instructions on reverse side

1 Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	5 Lease Serial No USA NM – 03549 USA SF - 080112
2 Name of Operator BP America Production Company Attn: Cherry Hlava	6 If Indian, Allottee or tribe Name RCVD JAN 29 '08
3a. Address P.O. Box 3092 Houston, TX 77253	7 If Unit or CA/Agreement, Name and/or No OIL CONS. DIV.
3b. Phone No (include area code) 281-366-4081	8 Well Name and No DIST. 3 Gooch 2
4 Location of Well (Footage, Sec., T., R., M., or Survey Description) 1850' FNL & 2510' FEL SEC 29 T28N R08W SWNE	9 API Well No 30-045-23360
	10 Field and Pool, or Exploratory Area Dakota, Mesaverde & Otero Chacra
	11 County or Parish, State San Juan County, New Mexico

12 CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OR NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize <input type="checkbox"/> Deepen <input type="checkbox"/> Production (Start/Resume) <input type="checkbox"/> Water shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Reclamation <input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair <input type="checkbox"/> New Construction <input checked="" type="checkbox"/> Recomplete <input type="checkbox"/> Other Tri-Mingling Request
	<input type="checkbox"/> Change Plans <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Water Disposal
	<input type="checkbox"/> Convert to Injection <input type="checkbox"/> Plug Back

13 Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompletable horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletable in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.

BP America requests permission to complete the subject well into both the Mesaverde & Chacra formations and tri-commingle production downhole with the existing Basin Dakota.

Pre Approved Pools by order R-11363: Basin Dakota (71599), Blanco Mesaverde (72319) & Otero Chacra (82329) Form C-107A is being submitted (copy attached) to to NMOCD; Santa Fe for their approval

Interest owners are identical between the MV & Chacra but different in the Dakota therefore notification was sent certified mail return receipt requested on Jan. 10, 2008.

Production is proposed to be allocated based on a fixed percentage. It is our intent to isolate the Dakota, complete into the MV, isolate the MV, & complete into the Chacra. Flow back to stabilize the Chacra & perform a Chacra flow test. Drill out bridge plug between the MV & CH, combined stream test on MV & CH. Chacra test will then be subtract from the total and a % calculated to determine the flow rate for the MV & CH. A decline will be used for the Dakota (see attached)

DHC order in progress

Commingling Production Downhole in the subject well from the proposed pools will not reduce the value of the total remaining production.

14 I hereby certify that the foregoing is true and correct
Name (Printed/typed)

Cherry Hlava

Title **Regulatory Analyst**

Signature *Cherry Hlava*

Date **01/25/2008**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Original Signed: Stephen Mason	Title	Date JAN 28 2008
Conditions of approval, if any, are attached. Approval of this notice does not warrant or Certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon	Office	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

NMOCD

District I
1625 N French Dr., Hobbs, NM 88240
Phone (505) 393-6161 Fax (505) 393-0720

District II

1301 W Grand Ave., Artesia, NM 88210
Phone (505) 748-1283 Fax (505) 748-9720

District III

1000 Rio Brazos Rd. Aztec, NM 87410
Phone (505) 334-6178 Fax (505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3470 Fax (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-102
Permit 51714

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30 45-23360	2 Pool Code 82329	3 Pool Name OTERO CHACRA (GAS)
4 Property Code 608	5 Property Name GOOCH	6 Well No 002
7 OGRID No 778	8 Operator Name BP AMERICA PRODUCTION COMPANY	9 Elevation

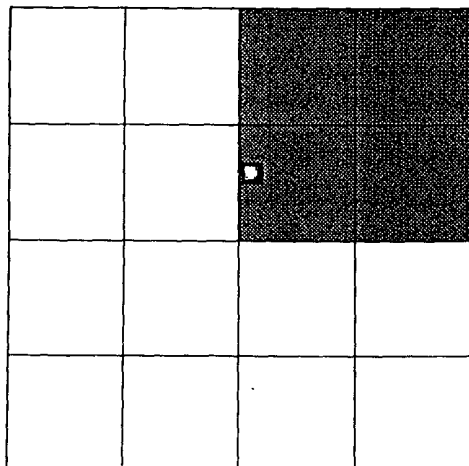
10. Surface Location

UL - Lot G	Section 29	Township 28N	Range 08W	Lot Idn	Feet From 1850	N/S Line N	Feet From 2510	E/W Line E	County SAN JUAN
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11. Bottom Hole Location If Different From Surface

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12 Dedicated Acres 160.00	13 Joint or Infill	14 Consolidation Code	15 Order No						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division

E-Signed By: Cheryl J. Jara
Title: Regulatory Analyst
Date: 1/7-2008

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief

Surveyed By: Fred Kerr
Date of Survey: 9/23/1978
Certificate Number 3950

District I
1625 N French Dr., Hobbs, NM 88240
Phone (505) 393-6161 Fax (505) 393-0720

District II
1301 W Grand Ave., Artesia, NM 88210
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1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C - 102
Permit 51714

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-245 23 360	2 Pool Code 72319	3 Pool Name BLANCO-MESAVERDE (PRORATED GAS)
4 Property Code 608	5 Property Name GOOCH	6 Well No 002
7 OGRID No 778	8 Operator Name BP AMERICA PRODUCTION COMPANY	9 Elevation

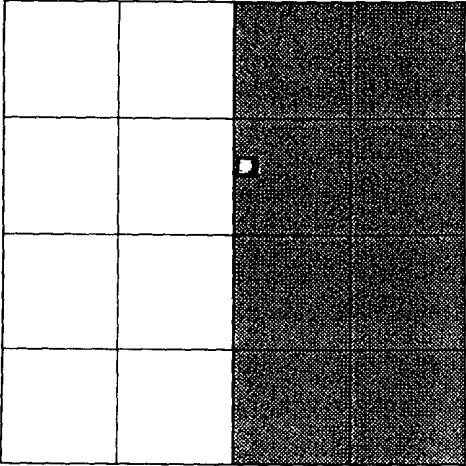
10. Surface Location

UL - Lot G	Section 29	Township 28N	Range 08W	Lot Idn	Feet From 1850	N/S Line N	Feet From 2510	E/W Line E	County SAN JUAN
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11. Bottom Hole Location If Different From Surface

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12 Dedicated Acres 320.00	13 Joint or Infill	14 Consolidation Code	15 Order No						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p style="text-align: center;">OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division</i></p> <p>E-Signed By <i>Ch. M. Gable</i> Title <i>Regional Analyst</i> Date <i>8-2-02</i></p> <hr/> <p style="text-align: center;">SURVEYOR CERTIFICATION</p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief</i></p> <p>Surveyed By Fred Kerr Date of Survey 9/23/1978 Certificate Number 3950</p>
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NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-10
Supersedes C-1, 2, 3
Effective 1-1-77

30 045-23360

All distances must be from the outer boundaries of the Section

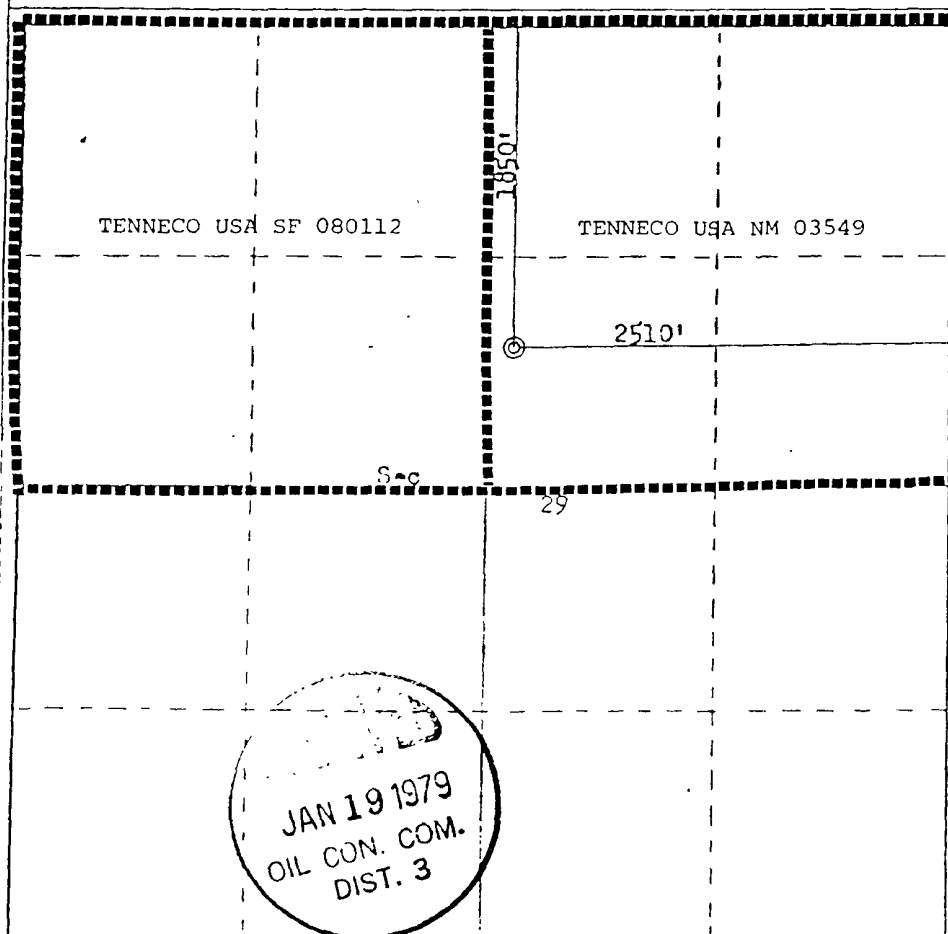
TENNECO OIL COMPANY			GOOCH		2
Section	Township	Range	County		
G	29	28N	8W	San Juan	
Actual Postage Location of Well:					
1850	feet from the	North	2510	feet from the	East
Ground Level Elev.	Producing Formation		Pool		Dedicated Acreage:
5887	Dakota		Basin Dakota		320

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation Communitization in progress.

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Name J. A. Rush

Position Environmental Coordinator

Company Tenneco Oil Company

Date October 20, 1978

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my knowledge and belief

Date surveyed

September 23, 1978

Fred B. Kerr, Jr.
KERR, JR.

3950

SJ Basin Recompletion & DHC Procedure

Well Name: Gooch 2

API #: 30-045-23360

Location: T28N-R8W-Sec 29

County: San Juan

State: New Mexico

Horizon: Chacra/ Mesa Verde/Dakota

Flac Well: 979502

Engr: Cristin Cammon

cristin.cammon@bp.com

ph (281) 366-5721

Objective: Perforate and fracture stimulate Mesa Verde and Chacra horizons, and downhole tri-mingle with the existing Dakota.

1. TOH with completion. Set CBP over DK.
 2. Run CBL and RST log.
 3. Perforate and fracture MV in the 1st stage. Set CBP over MV.
 4. Perforate and fracture CH in 2nd stage. Flow test CH.
 5. Clean out down to MV. Flow test CH and MV.
 6. Clean out to TD. Land tubing and return well to production.
 7. Downhole tri-mingle Mesa Verde, Chacra, and Dakota
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Well History:

This well has been producing from the Dakota since 1979, with a cumulative production of 0.63BCF and is producing approximately 20 mcf/d to date. The 2 3/8" tubing is landed at 6578'. The well is currently on plunger lift.

The objective is to recomplete this well to include the Mesa Verde horizon and Chacra horizon, and to commingle production downhole with the existing Dakota horizon. The job scope is to perforate and stimulate the Mesa Verde formation in one stage, then perforate and stimulate the Chacra formation in a second stage, clean out to TD, and commingle Mesa Verde, Chacra and Dakota production after performing a 24 hour test on both the Chacra only and Chacra and Mesa Verde together. The anticipated uplift is 240 mcf/d. A composite bridge plug will be set at 5000' to isolate the Dakota throughout the recomplete.

Procedure:

1. Perform pre-rig site inspection. Check for: size of location, Gas Taps, other wells, other operators, running equipment, wetlands, wash (dikes req.), H₂S, barriers needed for equipment, Landowner issues, location of pits (buried lines in pits), Raptor nesting, critical location, check anchors. Verify rig anchors are in place and tested. Check ID wellhead; if earth pit is required have One Call made 48 hours prior to digging.
2. Perform second site visit after lines are marked to ensure all lines clear marked pit locations. Planning and Scheduling to ready location for rig.
3. RU slickline unit or wireline unit. Pressure test lubricator and equipment. RIH and tag TD. Record TD along with indicated fluid level. RIH and set **two** barriers (CIBP, tbq collar stop w/plug, or plug set in nipple) for isolation in tubing string.
4. Check and record tubing, casing, and bradenhead pressures. Ensure production casing has double casing valves installed. Double valve all casing strings.
5. MIRU workover rig. LO/TO all necessary equipment including but not limited to: meter run, Automation, Separators and water lines.
6. Blow down well. Kill with 2% KCL water ONLY if necessary.
7. Check all casing strings to ensure no pressure exists on any annulus. **The operations of removal of wellhead and installation of BOP's will be performed under a dispensation for one (1) barrier on the backside.**
8. ND Wellhead. NU BOPs and diversion spool with 3" outlets and 3" pipe to the blow tank. Install two-way plug in tubing hanger and pressure test BOPs to 200 psi above BHP. Monitor flowing casing pressure with gauge (with casing flowing to blow tank) throughout workover.
9. Install stripping head, unseat and pull tubing hanger up above pipe rams, shut-in pipe rams, remove stripping rubber. Strip tubing hanger OOH. Re-install stripping rubber.
10. TOH 2 3/8" production tubing currently set at 6578', lay down tubing. Using approved "Under Balance Well Control Tripping Procedure". Visually inspect tubing while POOH, note any signs of pitting or corrosion and please document with pictures. Measure tubing out of hole. Recover isolation plugs from tubing.
11. TIH w/ 4-1/2" scraper. Check the distance between the top of the blind rams and the length of the bottom hole assembly that is being run. If the BHA is too long then the well has to be top killed and monitored prior to opening blind rams. RIH and scrape pipe to PBTD (~6721'). POOH. Lay down bit and scraper.
12. RU E-line equipment. Pressure test lubricator and equipment.
13. Pick up composite bridge plug and TIH. Set composite bridge plug at +/- 5000'. (Ensure plug is not set opposite a casing collar by doing a few passes at +/- 5000' with the CCL and then determine the setting depth.) Pressure test bridge plug to ensure it is holding. Fill casing w/ 2% KCl. POOH.

14. **Log well w/ CBL log and RST log from 6000' to 3000' (liner top).** Contact engineer after determining TOC in 4 ½" liner to discuss perforation placement or need for remedial cement squeeze if cement coverage is inadequate for the pay-add or if integrity of casing appears sub-par. Contact operations geologist, Mark Durio, for final perf interval selection from the RST.
15. Pressure test 4 ½" 10.5# K-55 liner to ~3200 psi (75% of burst is 3592 psi). Monitor outer annulus pressure closely. (To perform pressure test, RIH with tension set packer, set packer in casing just below lowest casing valve and test casing to desired pressure.)

Stage One: Mesa Verde

16. Prepare for explosive operations. Follow Schlumberger Explosive SOP including radio silence, suspension of welding operations, and isolation of electrical devices from the work area. Perform Pre-job Safety Meeting to review JSA and procedures. If someone has On Star on their vehicle they cannot enter closer than 300 foot. On Star cannot be turned off. PLEASE take special caution. This is in conjunction with all cell phones, pagers, radios and any electronic device that transmits a signal.
17. RIH with **3-1/8" High Shot Density casing gun loaded with Power Jet charges at 1 SPF 60 Degree Phasing** (total estimated holes will be 90) w/lubricator and perforate Menefee and Pt. Lookout formation.

Perforated intervals will be:

Point Lookout Upper Main Sand: 4475' – 4575'; 100ft gross interval

1 interval at 1 shot every other foot for 50 holes

- 4475' – 4575'

Menefee Channels (4): 4260' - 4400'; 140ft gross interval

2 intervals at 1 shot every other foot for 40 holes

- 4360' – 4400'
- 4260' – 4300'

NOTE: Final perf intervals will be determined after the RST log. Verify final perf intervals with engineer/geologist.

POOH with perforating guns.

18. Hold Risk Assessment (JHA) meeting prior to initiating pumping services.
19. RU 10,000 psi frac isolation equipment (Stinger Isolation Tool).
20. RU Schlumberger frac equipment. **NOTE:** Frac tanks should be filled with fresh water, the KCl will be added on the fly.
21. Pressure test iron to Stinger frac valve at 5000 psi for 10 minutes. Function test treating line check valve during the prime and pressure test operation.
22. The frac is expected to pump at approximately 3000 psi. Maximum allowable treating pressure will be **3200 psi**.

23. Set stagger pump trips to **3200-3400 psi**. Function test pump trips individually.
24. Install and monitor production casing and treating pressure during entire job in frac van via pressure transducers on production casing and treating line. Be sure to monitor the casing annulus pressure throughout the duration of stimulation treatment.
25. Spearhead 1000 gal 15% HCL, establish injection rate, and proceed with fracture stimulation according to Schlumberger schedule.
26. Fracture treat Mesa Verde down casing as per Schlumberger schedule. Treat well at a **maximum surface pressure of 3200 psi during frac job**.
27. Maintain surface pressures less than 3200 psi during frac job. Flush frac with foam. Fill out GWSI scorecard.

Stage Two: Chacra

28. Rig-up electric line equipment. Pick up composite bridge plug and perforation gun assembly.
29. RIH with plug/gun assembly. Set composite bridge plug at **3900'**.
30. Perforate the Chacra with **3-1/8" High Shot Density casing gun loaded with Power Jet charges at 1 SPF 60 Degree Phasing** (total estimated holes will be 80) w/lubricator and perforate Chacra formation.

Perforated intervals will be:

Chacra (Upper & Lower Sands): 3150 - 3360'; 210' gross interval
 1 interval at 1 shot every other foot for 80 holes
 ▪ 3160' – 3320'

31. POOH with plug/gun assembly and check firing rate of guns. Immediately report to Houston if firing rate less than 100% to determine if additional runs need to be made.
32. Hold Risk Assessment (JHA) meeting prior to initiating pumping services
33. RU wellhead isolation tool and Schlumberger equipment. Pressure test iron to Stinger frac valve at 5000 psi.
34. The frac is expected to pump at approximately 2900 psi. Maximum allowable treating pressure will be 3200 psi.
35. Set stagger pump trips to **3200-3400 psi**.
36. Frac the Chacra interval as per Schlumberger schedule.

Flowback:

37. Flowback Chacra frac immediately. Flow well through choke manifold on 1/4", 1/2" and 3/4" chokes slowly increasing drawdown until well dies or stabilizes. This is to aid in reducing sand flowback. Recommend 8 hours of flow for each choke size.

38. Rig up air package/unit, pressure test all lines (Testing procedure to be supplied from air company). TIH with 2 3/8" tubing with notched collar (muleshoe) and float check valve.
39. Cleanout fill to frac plug set at +/- 3900'.
40. POOH with tubing and float.
41. RIH with tubing and wireline retrievable pump through plug. Hang off tubing at +/- 3250'. Retrieve plug.
42. Flow test the Chacra for 24 hrs for regulatory, allocation, and deliverability purposes.
43. POOH with tubing.
44. TIH w/ tubing and bit for 4-1/2" casing. Drill out CBP set at 3900'. Cleanout to CBP set at 5000'.
45. RIH with tubing and wireline retrievable pump through plug. Hang off tubing at +/- 4450'. Retrieve plug.
46. Flow test the Chacra and Mesaverde for 24 hrs for regulatory, allocation, and deliverability purposes.
47. POOH with tubing.
48. TIH w/ tubing and bit for 4-1/2" casing. Drill out CBP set at 5000'. Cleanout to PBTD at 6721'.
49. RIH with 2-3/8" production tubing (with muleshoe, F-nipple with plug, 4 ft pup, X-nipple with plug).
50. Land 2-3/8" production tubing at +/- 6680' or depth determined from logs. Lock down 2 3/8" tubing hanger and bonnet.
51. Pressure test tubing to 500 psi with air unit, make sure tubing spool valves are open. Care should be taken during pressure testing of the tubing due to potential problem caused if tubing parts close to surface or above the hanger. Check all casing string for pressure. **The operations of removal of wellhead and installation of BOP's will be performed under a dispensation for one (1) barrier on the backside.**
52. ND BOP's. NU Wellhead. During Master valve placement ensure the top of hanger has spacer nipple in place to bottom of bonnet flange so plunger equipment will not hang up through tree. Pressure test Wellhead.
53. RU WL unit. Run gauge ring for 2-3/8" tubing. Pull plugs. Set tubing stop for plunger and communicate plunger equipment status to IC room personnel.
54. RD WL unit.
55. Test well for air. Hook up well to surface facilities and return well to production and downhole commingle Mesa Verde and Dakota.

Wellbore Diagram:

Good 2

Sec 29, T28N, R8W
30-045-23360

1. 2. 3. 4.

Hint:

Completed 1999
Department

For Further Tests:

Q1	5150
Q2	5920
Q3	6450
Q4	6520

[illegible]

1. *Chlorophyll a* and *Chlorophyll b* contents were determined by the method of Arar and Johnson (1977).

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

Dakota Perf.

(Signature)

NOTES:

T₁, T₂
T₁, T₂

www.tutoronline.com

9-5,87 16W, K-55 to 217
2001

34 TOS.

1927 年 10 月 1 日

7" 23W, K-55 @ 1100'

© THE UNIVERSITY OF CHICAGO 2015

Ref: 2-39 438 @ 6578

4-1, 2" liver, 10.5" R-55 @ 6740'

1.1.104.104.0200.00

Gooch #2 Future Production Decline Estimate

1/25/2008

Basin Dakota Daily Rates

| | | Month | Gas Volume | | Month | Gas Volume | | Month | Gas Volume | | Month | Gas Volume | | Month | Gas Volume |
|--|----------------------|------------|------------|-----|----------|------------|--|----------|------------|--|----------|------------|--|----------|------------|
| | $\ln(Q_t/Q_i) = -dt$ | Jun-2007 | 704 | | Jul-2010 | 591 | | Jul-2013 | 497 | | Jul-2016 | 418 | | Jul-2019 | 351 |
| | $Q_f =$ | 707 | Jul-2007 | 700 | Aug-2010 | 589 | | Aug-2013 | 495 | | Aug-2016 | 416 | | Aug-2019 | 350 |
| | $Q_i =$ | 2305 | Aug-2007 | 697 | Sep-2010 | 586 | | Sep-2013 | 492 | | Sep-2016 | 414 | | Sep-2019 | 348 |
| | $rate =$ | 23 | Sep-2007 | 693 | Oct-2010 | 583 | | Oct-2013 | 490 | | Oct-2016 | 412 | | Oct-2019 | 346 |
| | $time =$ | 245 | Oct-2007 | 690 | Nov-2010 | 580 | | Nov-2013 | 488 | | Nov-2016 | 410 | | Nov-2019 | 345 |
| | $dt =$ | -1.1818053 | Nov-2007 | 687 | Dec-2010 | 577 | | Dec-2013 | 485 | | Dec-2016 | 408 | | Dec-2019 | 343 |
| | $decline =$ | -0.0048237 | Dec-2007 | 684 | Jan-2011 | 575 | | Jan-2014 | 483 | | Jan-2017 | 406 | | Jan-2020 | 341 |
| | | | Jan-2008 | 680 | Feb-2011 | 572 | | Feb-2014 | 481 | | Feb-2017 | 404 | | Feb-2020 | 340 |
| | | | Feb-2008 | 677 | Mar-2011 | 569 | | Mar-2014 | 478 | | Mar-2017 | 402 | | Mar-2020 | 338 |
| | | | Mar-2008 | 674 | Apr-2011 | 566 | | Apr-2014 | 476 | | Apr-2017 | 400 | | Apr-2020 | 336 |
| | | | Apr-2008 | 670 | May-2011 | 564 | | May-2014 | 474 | | May-2017 | 398 | | May-2020 | 335 |
| | | | May-2008 | 667 | Jun-2011 | 561 | | Jun-2014 | 471 | | Jun-2017 | 396 | | Jun-2020 | 333 |
| | | | Jun-2008 | 664 | Jul-2011 | 558 | | Jul-2014 | 469 | | Jul-2017 | 394 | | Jul-2020 | 332 |
| | | | Jul-2008 | 661 | Aug-2011 | 555 | | Aug-2014 | 467 | | Aug-2017 | 393 | | Aug-2020 | 330 |
| | | | Aug-2008 | 658 | Sep-2011 | 553 | | Sep-2014 | 465 | | Sep-2017 | 391 | | Sep-2020 | 328 |
| | | | Sep-2008 | 654 | Oct-2011 | 550 | | Oct-2014 | 462 | | Oct-2017 | 389 | | Oct-2020 | 327 |
| | | | Oct-2008 | 651 | Nov-2011 | 548 | | Nov-2014 | 460 | | Nov-2017 | 387 | | Nov-2020 | 325 |
| | | | Nov-2008 | 648 | Dec-2011 | 545 | | Dec-2014 | 458 | | Dec-2017 | 385 | | Dec-2020 | 324 |
| | | | Dec-2008 | 645 | Jan-2012 | 542 | | Jan-2015 | 456 | | Jan-2018 | 383 | | Jan-2021 | 322 |
| | | | Jan-2009 | 642 | Feb-2012 | 540 | | Feb-2015 | 454 | | Feb-2018 | 381 | | Feb-2021 | 321 |
| | | | Feb-2009 | 639 | Mar-2012 | 537 | | Mar-2015 | 451 | | Mar-2018 | 379 | | Mar-2021 | 319 |
| | | | Mar-2009 | 636 | Apr-2012 | 534 | | Apr-2015 | 449 | | Apr-2018 | 378 | | Apr-2021 | 317 |
| | | | Apr-2009 | 633 | May-2012 | 532 | | May-2015 | 447 | | May-2018 | 376 | | May-2021 | 316 |
| | | | May-2009 | 630 | Jun-2012 | 529 | | Jun-2015 | 445 | | Jun-2018 | 374 | | Jun-2021 | 314 |
| | | | Jun-2009 | 627 | Jul-2012 | 527 | | Jul-2015 | 443 | | Jul-2018 | 372 | | Jul-2021 | 313 |
| | | | Jul-2009 | 624 | Aug-2012 | 524 | | Aug-2015 | 441 | | Aug-2018 | 370 | | Aug-2021 | 311 |
| | | | Aug-2009 | 621 | Sep-2012 | 522 | | Sep-2015 | 439 | | Sep-2018 | 369 | | Sep-2021 | 310 |
| | | | Sep-2009 | 618 | Oct-2012 | 519 | | Oct-2015 | 436 | | Oct-2018 | 367 | | Oct-2021 | 308 |
| | | | Oct-2009 | 615 | Nov-2012 | 517 | | Nov-2015 | 434 | | Nov-2018 | 365 | | Nov-2021 | 307 |
| | | | Nov-2009 | 612 | Dec-2012 | 514 | | Dec-2015 | 432 | | Dec-2018 | 363 | | Dec-2021 | 305 |
| | | | Dec-2009 | 609 | Jan-2013 | 512 | | Jan-2016 | 430 | | Jan-2019 | 362 | | Jan-2022 | 304 |
| | | | Jan-2010 | 606 | Feb-2013 | 509 | | Feb-2016 | 428 | | Feb-2019 | 360 | | Feb-2022 | 302 |
| | | | Mar-2010 | 603 | Mar-2013 | 507 | | Mar-2016 | 426 | | Mar-2019 | 358 | | Mar-2022 | 301 |
| | | | Apr-2010 | 600 | Apr-2013 | 504 | | Apr-2016 | 424 | | Apr-2019 | 356 | | Apr-2022 | 300 |
| | | | May-2010 | 597 | May-2013 | 502 | | May-2016 | 422 | | May-2019 | 355 | | May-2022 | 298 |
| | | | Jun-2010 | 594 | Jun-2013 | 500 | | Jun-2016 | 420 | | Jun-2019 | 353 | | Jun-2022 | 297 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
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District I
1624 N French Drive Hobbs NM 88240

District II
1301 W Grand Avenue Artesia NM 88210

District III
Well
1000 Rio Bravos Road Abo NM 87410

District IV
1220 S St Francis Dr Santa Fe NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107A
Revised June 10, 2003

Oil Conservation Division
1220 South St. Francis Dr.

Santa Fe, New Mexico 87505

APPLICATION TYPE
 X Single

 Establish Pre-Approved Pools
EXISTING WELLBORE
 X Yes No

APPLICATION FOR DOWNHOLE COMMINGLING

BP America Production Company

P.O. Box 3092 Houston Tx 77253

Operator _____ Address _____

Lease Gooch Well No. 2 Unit Letter-Section-Township-Range Unit G Section 29 T28N, R08W County San Juan

OGRID No. 000778 Property Code 000608 API No. 30-045-23360 Lease Type: X Federal State Fee

| DATA ELEMENT | UPPER ZONE | INTERMEDIATE ZONE | LOWER ZONE |
|--|--|--|--|
| Pool Name | Blanco Otero Chacra | Blanco Mesaverde | Basin Dakota |
| Pool Code | 82329 | 72319 | 71599 |
| Top and Bottom of Pay Section
(Perforated or Open-Hole Interval) | To Be Determined | To Be Determined | 6578' - 6682' |
| Method of Production
(Flowing or Artificial Lift) | Artificial Lift | Artificial Lift | Artificial Lift |
| Bottomhole Pressure
(Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone) | 530 | 425 | 590 |
| Oil Gravity or Gas BTU
(Degree API or Gas BTU) | 1165 | 1145 | 1177 |
| Producing, Shut-In or
New Zone | New Zone | New Zone | Producing |
| Date and Oil/Gas/Water Rates of
Last Production.
(Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.) | Date:

Rates: | Date:

Rates: | Date: 1/6/08

Rates: 24.7 mcf/d |
| Fixed Allocation Percentage
(Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.) | Oil Gas

% % | Oil Gas

% % | Oil Gas

% % |

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes No X
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes X No
Are all produced fluids from all commingled zones compatible with each other? Yes X No
Will commingling decrease the value of production? Yes No X
If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes X No

NMOCD Reference Case No. applicable to this well: _____

Attachments:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools
List of all operators within the proposed Pre-Approved Pools
Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
Bottomhole pressure data.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Cherry Hlava TITLE Regulatory Analyst DATE 01/25/2008

TYPE OR PRINT NAME Cherry Hlava TELEPHONE NO. (281) 366-4081

E-MAIL ADDRESS hlavacl@bp.com